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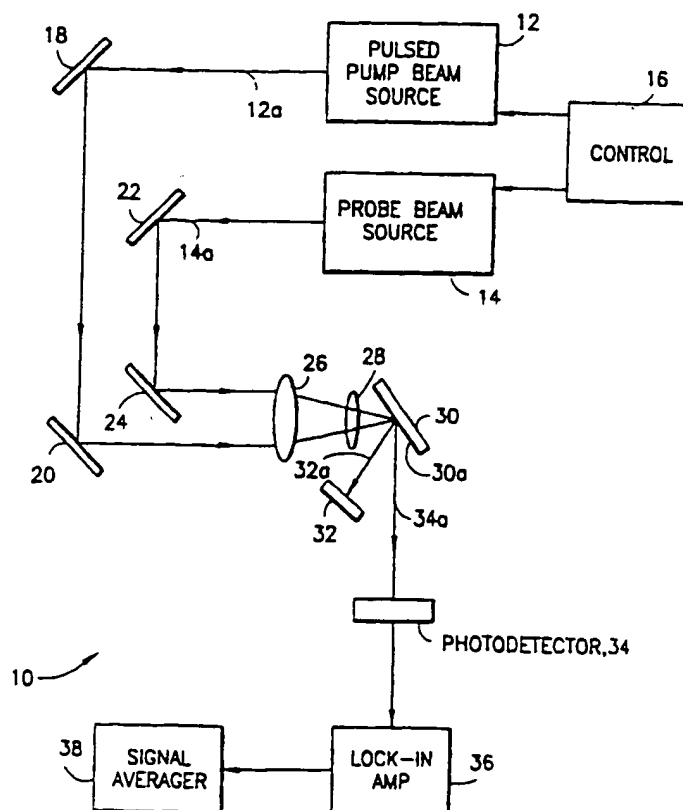
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With international search report.

(54) Title: ULTRAFAST OPTICAL TECHNIQUE FOR THE CHARACTERIZATION OF ALTERED MATERIALS

(57) Abstract

An ion implant characterization system (10) includes a pulsed pump beam source (12) and a probe beam source (14) which are all operated by a controller (16). A plurality of mirrors (18, 20), and (22, 24) may be employed for directing the pump and probe pulses (12a and 14a) respectively to a focusing optical element shown as a lens (26). Lens (26) provides a focussed pulsed beam (28) to a surface (30a) of an ion implanted sample (30) that is being characterized. A beam blocker (32) is employed to stop any reflected portion (32a) of the pump beam while a photodetector (34) is employed to receive the reflected portion of the pulsed probe beam, the portion of the probe beam that reflects from the surface (30a) of the sample (30).



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/12331

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : GO1N 21/00

US CL : 356/432

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 356/432, 445

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 4,710,030 [TAUC ET AL] 01 December 1987, col. 3-4 and figures 2-4.	1 - 69
A	US, A, 4,522,510 [ROSENCWAIG ET AL] 11 June 1985.	1 - 69
A	US, A, 4,579,463 [ROSENCWAIG ET AL] 01 April 1986.	1 - 69

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

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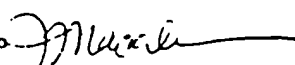
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